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Annex 1

FACTS AND ARGUMENTS**1. CITED LITERATURE**

- D1 Outtrup, H and Norman, B.E. (1984) Starch/Stärke 36, 405-411
- D2 Christophersen, C. et al. (1998) Starch/Stärke 50 (1), 39-45.
- D3 WO 91/04669
- D4 EP-B-0403553 to Enzyme Biosystems – Method for retarding the staling of baking products.
- D5 Priority document of the opposed patent
- D6 EP-0869167-A2. This document has a filing date ((9.12.1997) prior to the priority date of the opposed patent (20.04.1998) and a publication date (7.10.1998) later than the priority date of the opposed patent but prior to the filing date (30.03.1999) of the opposed patent. Therefore, D2 constitutes prior art under Art 54(3) for claims of the opposed patent that are entitled to the priority date and prior art under Art 54(2) for claims of the opposed patent that are not entitled to the priority date (see paragraph 2 of these Facts and Arguments).
- D7 EP-A-0120693
- D8 Ohta, S et al. (1983) Abstracts of the AACC 68th Annual Meeting, Kansas City Application of enzymatic modification of phospholipids on breadmaking
- D9 EP-A-0109244 to Kyowa Hakko Kogyo. "A bread or other cereal-based food improver composition"
- D10 Ohta et al. (1988) First International Symposium – Enzymes in the Forefront of Food and Feed Industries. "Enzymatic modification of phospholipids for gluten improvement"
- D11 EP-A-0575133 to Sankyo
- D12 Kweon et al., (1994) Food Science 59(5), 1072-1076. "Phospholipid Hydrolysate and anti-staling amylase effects on retrogradation of starch in bread"
- D13 Si, J.Q (1999), BioTimes No 1, "Even the freshest bread improves with Novamyl".

2. INTRODUCTION

2.1 Maltogenic alpha-amylase

Claim 1 of the opposed patent relates to a process for preparing a dough comprising incorporating into the dough a maltogenic alpha-amylase and a phospholipase.

In this paragraph we will demonstrate, on the basis of the prior art, that there is no correlation between the anti-staling properties of an amylase and its mode of action, in particular the amylase being a maltogenic alpha-amylase.

In the examples of the opposed patent, the maltogenic alpha-amylase from *Bacillus stearothermophilus* strain NCIB 11837 is used as the single embodiment of the alpha-amylase of claim 1. This enzyme is commercially available from the Patentee under the trade name Novamyl®.

In order to determine the exact nature of Novamyl, in other words, how does it attack its starch substrate, e.g. in an endo- or exo-fashion, what is the structure of the product (beta or alpha), the patentee carried out and published several studies.

Initially (D1), Novamyl was classified as a thermostable microbial β -amylase meaning that it liberates successive β -maltose units from the non-reducing end of starch (amylose and amylopectin) in an exo-fashion. However, careful study of the maltose product revealed that the latter was in the α - configuration rather than in the β -configuration. Hence, the enzyme was reclassified as an "exo-acting maltogenic α -amylase".

In a more recent study (D2), researchers at patentee's laboratory came to the conclusion that the classification of Novamyl again had to be reconsidered and should be changed into "endo-acting maltogenic α -amylase". This conclusion was based on the fact that Novamyl drastically reduces the molecular weight of amylose (in contrast to exo-acting β -amylases) as well as the fact that the products of the hydrolytic attack on starch not only comprise DP2 (i.e. maltose – Degree of Polymerization of 2 glucose units) but also higher oligosaccharides such as DP3 up to DP7 (see Table 3 in D2 and Table 4 in D1).

The exo-acting enzymes β -amylase and amyloglucosidase exclusively produce β -maltose and glucose respectively.

This means that Novamyl is a member of a group of endo-acting maltogenic α -amylases which has other members such as enzymes originating from different *Aspergillus* and *Streptomyces* species – see Table 2 in D1.

Novamyl has anti-staling properties (D3). At present it is unknown which properties of Novamyl, such as the endo-acting fashion on starch, the formation of maltose and other lower oligosaccharides, its thermostability, are responsible for the anti-staling properties. In any case, the other members of the group of endo-acting maltogenic α -amylases referred to above do not possess the anti-staling properties, except for the acid amylase from *Aspergillus niger* (referred to as A. niger A in Table 2 of D1) – see D4. On the contrary, it is known that other bacterial α -amylases have anti-staling properties (see D3 and references cited therein) and are not considered as maltogenic but have instead a broader product spectrum.

This clearly demonstrates that there is no correlation between the fact that an amylase is an endo-acting maltogenic α -amylase and that the amylase has an anti-staling effect.

2.2 Phospholipids, lysophospholipid and phospholipase

Claim 1 of the opposed patent relates to a process for preparing a dough comprising incorporating into the dough a maltogenic alpha-amylase and a **phospholipase**. Claim 5 relates to the further incorporation of a phospholipid.

D8 teaches that addition of modified phospholipids by phospholipase A or the single use of phospholipase A (and therefore acting on in wheat flour present endogeneous phospholipids) improves dough handling, properties, loaf volume, crum grain and **crumb softness** (i.e. reduces the firmness).

D9 discloses that addition of phospholipase A to dough results in a baked bread having a reduced "relative staleness" compared to a bread made without the addition of the phospholipase (see Table 3 and Table 4 (II and III) of D9). Addition of lecithin in

combination with phospholipase gives a further improved softness of the baked bread (see Table 7 of D9, compare test group IV with II).

D10 shows the experimental results obtained with the teaching of D8. Addition of phospholipase A alone (PL-A in Table 1) or phospholipase A modified lecithin (i.e. lysolecithin = EMPL-A in Table 2) clearly shows that the crumb firmness of the baked bread is reduced from a value of 100 for the control to 85 and 87 respectively.

The phospholipases used in D8-D10 are all phospholipase type A2 from either porcine pancreas (D8-D10) or Bee Toxin (D9). The use of fungal phospholipase A1 for baking purposes has been described in D11 (page 9, lines 22-28).

Inhibition of the retrogradation by lysophospholipids (named phospholipid hydrolysate) has also been described Kweon et al. in D11. In this case, the lysophospholipids were obtained by the action of phospholipase A2 (the product Lecitase, kindly donated by the Patentee to the authors of D11). In addition to the effect of the lysophospholipids, the authors also investigated the effect of Novamyl (also kindly donated by the Patentee to the authors) on the rate of retrogradation and confirmed the earlier observation of the Patentee (D03), that Novamyl has anti-staling properties. The combined effect of phospholipid hydrolysate and Novamyl was found to be even greater than their individual effects.

3. PRIORITY OF THE CLAIMS

The opposed patent has been filed on 30 March 1999 and claims the priority of the Danish patent application DK54398 with a filing date of 20 April 1998 (D5). The opponent is of the opinion that the majority of the claims are not entitled to the priority date but only to the filing date of the opposed patent for the reasons outlined below.

Claim 1

Independent claim 1 of the opposed patent is **NOT** entitled to the priority date. Said claim relates to *"a process for preparing a dough or a baked product prepared from the dough, comprising incorporating into the dough an maltogenic alpha-amylase and a phospholipase"*. In the priority document, however, this process also comprises the essential incorporation into the dough of a phospholipid: e.g. see claim 1 of the priority document as well as the paragraphs on page 1, lines 30 to page 2, line 2. Also in Example 1, phospholipid (lecithin) is added (page 5, lines 27-28).

In the present wording, claim 1 of the opposed patent comprises also processes in which the incorporation of a phospholipid into the dough is not mandatory, in contrast to the process of the priority document. Therefore, claim 1 has an effective date 30 March 1999.

Claims 2-5

Dependent claims 2-5 of the opposed patent are **NOT** entitled to the priority date in view of their dependency on claim 1 for the reasons recited above and because the additional features do not relate to the use of the phospholipid. Therefore, claims 2-5 have an effective date of 30 March 1999.

Claims 7-10

Dependent claims 7-10 of the opposed patent are **NOT** entitled to the priority date in view of their dependency on claims 1-5 for the reasons recited above under claim 1 and 2-5. Therefore, claims 7-10 have an effective date of 30 March 1999.

Claim 11

Independent claim 11 of the opposed patent is **NOT** entitled to the priority date. Said claim relates to *"a dough which comprises a maltogenic alpha-amylase and a*

phospholipase". In the priority document, however, the dough also comprises essentially a phospholipid: e.g. see claim 11 of the priority document as well as the paragraph on page 1, lines 32-33. Also in Example 1, a dough is made containing phospholipid (lecithin - page 5, lines 27-28).

Claim 11 of the opposed patent comprises doughs in which the incorporation of a phospholipid into the dough is not mandatory, in contrast to the dough of the priority document. Therefore, claim 11 has an effective date 30 March 1999.

Claim 12

Independent claim 12 of the opposed patent is NOT entitled to the priority date. Said claim relates to "a *premix comprising flour, a maltogenic alpha-amylase and a phospholipase*". In the priority document, however, the premix also comprises essentially a phospholipid: e.g. see claim 12 of the priority document as well as the paragraphs on page 1, lines 32-33 and page 5, line 10-14.

Claim 12 of the opposed patent comprises premixes in which the incorporation of a phospholipid is not mandatory, in contrast to the premixes of the priority document. Therefore, claim 12 has an effective date of 30 March 1999.

Claim 14

Dependent claim 14 of the opposed patent is NOT entitled to the priority date. Said claim relates to "an *enzyme preparation comprising a maltogenic alpha-amylase and a phospholipase and which further comprises a phospholipid, preferably lecithin*". In the priority document, however, none of the enzyme preparations disclosed therein do contain the phospholipid: e.g. see claims 13-16 of the priority document as well as the paragraph on page 5, lines 14-24. Therefore, claim 14 has an effective date 30 March 1999.

Claims 15-17

Dependent claims 15-17 of the opposed patent are NOT entitled to the priority date insofar they are dependent on claim 14 for the reasons discussed under claim 14.

Summary.

- o Claims 1-5, 11, 12 and 14 are not entitled to the priority date but have an effective filing date of 30 March 1999.

- o Claims 7-10 are not entitled to the priority date insofar they are dependent on anyone of claims 1-5 but have an effective filing date of 30 March 1999.
- o Claims 15-17 are not entitled to the priority date insofar they are dependent on claim 14 but have an effective filing date of 30 March 1999.
- o Claims 6 and 13 are entitled to priority and therefore have an effective filing date of 20 April 1998.

4. ART 100(C) – ADDED MATTER

In reply to the first office action of the Examiner dated 21.03.2001, the applicant has amended the claims and the description by replacing every original occurrence "anti-staling amylase" by "maltogenic alpha-amylase" while referring to page 2, line 12 for support of this amendment (letter dated 4 July 2001). As a result, the prerequisite that the amylase in the application as filed possesses anti-staling properties is no longer present in the granted patent (claims and description).

Also the definition given in paragraph [0008] of the granted patent does not unambiguously state that the amylase has to have anti-staling properties. The definition reads that it may be any amylase that is effective in retarding the staling of baked products. Consequently, it can also be another amylase that is not effective in retarding the staling of baked products.

As the Opponent has discussed in paragraph 2 of these Facts and Arguments, there is no one-to-one relationship between the term "maltogenic alpha-amylase" and anti-staling amylase. The term maltogenic alpha-amylase also embraces enzymes without anti-staling properties. As a result, the scope of protection of the granted patent has broadened in comparison with the application as filed.

Therefore, the cited amendment made by the applicant introduced added matter in both the claims as well as the description. Consequently, both the claims and the description contravene the provisions of Art 123(2) and the patent should therefore be revoked.

5. ART 100(B) - INSUFFICIENCY OF DISCLOSURE (ART 83)

Claim 9 is dependent on any of the preceding claims 1-8. Claim 9 comprises as a feature "the phospholipid". Only claim 6 of the preceding claims relates to the addition of a phospholipid. This means that the process of claim 9, insofar this claim depends on any of claims 1-5, is not disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

Claim 9 contravenes the provisions of Art 83 EPC and therefore, the patent should be revoked.

6. ART 100(A) – NOVELTY (ART 54) AND INVENTIVE STEP (ART 56)

Claim 1 (30 March 1999)

Claim 1 – lack of novelty

Claim 1 lacks novelty in view of D6.

D6 discloses the use of phospholipase A (PLA), in particular the PLA1 from *Fusarium oxysporum* (which is one of the embodiments used in the opposed patent) in baking – e.g. page 21, line 10 to page 22, line 5 as well as Examples 20 and 21. On page 21, line 37 is mentioned that the phospholipase can be used in combination inter alia with "an amylase, e.g. α -amylase (useful for providing sugars fermentable by yeast)".

The maltogenic α -amylase in claim 1 of the opposed patent is such "an amylase, e.g. α -amylase (useful for providing sugars fermentable by yeast)" – because it is an α -amylase and is maltogenic, i.e. it produces maltose in the dough (see for instance also Table 4 in D2). Maltose is generally known to be a sugar readily fermentable by (baker's) yeast.

Therefore, since D6 discloses all the features of claim 1, claim 1 lacks novelty in view of D6.

Claim 1 – lack of inventive step

Claim 1 – lacks an inventive step in view of

- D12 and general knowledge
- D12 + D6
- D12 + D8-D10
- D3 + D6
- D3 + D8-D10
- D4 + D6
- D4 + D8-D10

D12 and general knowledge

D12 is taken as the closest prior art. It discloses a process for preparing a dough or a baked product from the dough. Similar to claim 1 of the opposed patent, D12 discloses the incorporation of Novamyl (i.e. the maltogenic alpha-amylase) into the dough. The difference between D12 and claim 1 is that in D12 a phospholipid hydrolysate (lysolecithin), prepared by incubating lecithin with phospholipase A2 (Lecitase), is added to the dough, whereas the process of claim 1 involves the in situ formation of a phospholipid hydrolysate by incorporating phospholipase into the dough. In the latter case, the incorporated phospholipase hydrolyses the phospholipids that are naturally present in the wheat flour.

According to the Patentee, the incorporation of the phospholipase results in an improved softness of the baked bread in the initial period after baking, particularly the first 24 hours after baking (paragraph [0006] of the opposed patent). The objective problem can then be formulated as how to improve the softness of the baked bread in the initial period after baking, particularly the first 24 hours after baking.

The same problem is addressed by D12. Figure 5 clearly shows that the incorporation of the phospholipid hydrolysate in the dough, in addition to the incorporation of Novamyl, further reduces the crumb firmness after 24 hrs (1 day storage time) and subsequent time points.

Therefore, the skilled person, confronted with the problem how to improve the softness of the baked bread in the initial period after baking, particularly the first 24 hours after baking, would use the teachings of D12 and, having knowledge of the effects obtained with the phospholipid hydrolysate in combination with Novamyl therein, would, without any inventive skill, consider the incorporation of a phospholipase directly into the dough so as to have in situ formation of phospholipid hydrolysate and the same beneficial effects as in D12.

D12 + D6

Alternatively, the skilled person would have combined the teachings of D12 with those of D6. Example 21 of D6 clearly shows that the incorporation of the phospholipase (the same phospholipase from *Fusarium oxysporum* DSM 2672 as the one used in the opposed patent) in the dough reduces the crumb firmness. See for instance Table 21 on page 49 of D6 where the addition of phospholipase alone reduces the firmness of the baked bread at day 0 (from 223 towards 201) and day 1 (from 350 towards 303) and even at day 3 (from 631 towards 573).

D12 + D8-D10

Furthermore, the skilled person would have combined the teachings of D12 with those of D8-D10. These documents clearly demonstrate that not only the addition of a phospholipid hydrolysate improves the crumb softness, but also that this can be achieved by the single addition of phospholipase (see paragraph 2.2).

D3 + D6

D3 is taken as the closest prior art. It discloses a process for preparing a dough or a baked product from the dough. Similar to claim 1 of the opposed patent, D3 discloses the incorporation of Novamyl (i.e. the maltogenic alpha-amylase) into the dough. The difference between D3 and claim 1 is that the process of claim 1 comprises the additional incorporation of a phospholipase into the dough.

According to the Patentee, the incorporation of the phospholipase results in an improved softness of the baked bread in the initial period after baking, particularly the first 24 hours after baking (paragraph [0006] of the opposed patent). The objective problem can

then be formulated as how to improve the softness of the baked bread in the initial period after baking, particularly the first 24 hours after baking.

The same problem is addressed by D6. Example 21 clearly shows that the incorporation of the phospholipase (the same phospholipase from *Fusarium oxysporum* DSM 2672 as the one used in the opposed patent) in the dough reduces the crumb firmness. See for instance Table 21 on page 49 of D6 where the addition of phospholipase alone reduces the firmness of the baked bread at day 0 (from 223 towards 201) and day 1 (from 350 towards 303) and even at day 3 (from 631 towards 573).

Therefore, the skilled person, confronted with the problem how to improve the softness of the baked bread in the initial period after baking, particularly the first 24 hours after baking, would combine the teachings of D3 and D6 and, would, without any inventive skill, arrive at the subject matter of claim 1

D3 + D8-D10

Alternatively, the skilled person would have combined the teachings of D3 with those of D8-D10. These documents clearly demonstrate that not only the addition of a phospholipid hydrolysate improves the crumb softness, but also that this can be achieved by the single addition of phospholipase (see paragraph 2.2).

In view of the above argumentation it is obvious that the process of claim 1 lacks an inventive step

D4 + D6 and D4 + D8-D10

D4 is taken as the closest prior art. It relates to an acid amylase having anti-staling properties. According to the Patentee, this enzyme belongs to the group of maltogenic alpha-amylases (see Table 2 in D1). This means that the maltogenic alpha-amylase in D4 is an equivalent of the maltogenic alpha-amylase of claim 1. As a result thereof, the argumentation given above for lack of inventive step in view of D3 + D6 and D3 + D8-D10 apply mutatis mutandis for lack of inventive step in view of D4 + D6 and D4 + D8-D10.

Claims 2 and 3 (30 March 1999)

Claims 2 and 3 – lack of inventive step

Claims 2 and 3, both dependent on claim 1, lack an inventive step in view of:

- o D12 and general knowledge
- o D12 + D6
- o D12 + D8-D10
- o D3 + D6
- o D3 + D8-D10

Claim 1 lacks an inventive step in view of these citations as outlined above.

The additional feature of claim 2 is that the maltogenic alpha-amylase has optimum activity in bread at 70-90°C and the additional feature of claim 3 is that the maltogenic alpha-amylase is from *B. stearothermophilus*, preferably from strain NCIB 11837. Please note that the latter enzyme is known as Novamyl.

The additional features of claims 2 and 3 are disclosed in D3 and (implicitly) in D12. On page 6, lines 4-25 of D3, it is stated that the *"the exo-amylase (i.e. the maltogenic alpha-amylase of the opposed patent) for use in the present process is one which exhibits exoamylase activity at and above the gelation temperature of starch (about 60-70°C) It should be noted that the exoamylases will be inactivated later in the baking process at temperatures above about 90°C.* From this paragraph must be concluded that the amylase must be active between 70° and 90°C. Furthermore, on page 6 lines 28-31 it is stated that *"An example of a suitable exoamylase is a maltogenic amylase producible by Bacillus strain NCIB 11837".* This amylase is known as Novamyl. Although D3 does not explicitly mention that the Bacillus strain is *Bacillus stearothermophilus*, the latter is obvious from D7 as well as from page 2, lines 11-15 of the application as filed.

Therefore, the cited paragraphs of D3 unambiguously disclose the additional features of claims 2 and 3. Furthermore, since Novamyl is used in D12, also D12 discloses (implicitly) the additional features of claims 2 and 3.

As a result, claims 2 and 3 lack an inventive step in view of the same documents as cited for claim 1.

Claims 4 and 5 (30 March 1999)

Claims 4 and 5 - novelty

Claims 4 and 5 are dependent on claim 1 which lacks novelty in view of D6.

The additional feature of claim 4 is that the phospholipase of claim 1 has a temperature optimum of 30-70°C and the additional feature of claim 5 is that the phospholipase is fungal, preferably from *Fusarium*, most preferably from *Fusarium oxysporum*.

Although D6 does not explicitly disclose the temperature range of claim 4 (30-70°C), both the opposed patent as well as D6 have the phospholipase from *Fusarium oxysporum* strain DSM 2672 as a preferred embodiment of the invention. From this must be concluded that this phospholipase has a temperature optimum in the range of claim 4. As a consequence, D6 implicitly also discloses the additional features of claim 4 and 5 and as a result thereof, claims 4 and 5 lack novelty in view of D6.

Claims 4 and 5 – lack of inventive step

Claims 4 and 5 are dependent on claim 1.

Claims 4 and 5 lack an inventive step in view :

- o D12 + D6
- o D3 + D6
- o D4 + D6

Claim 1 lacks an inventive step in view of these citations as outlined above.

The additional feature of claim 4 is that the phospholipase of claim 1 has a temperature optimum of 30-70°C and the additional feature of claim 5 is that the phospholipase is fungal, preferably from *Fusarium*, most preferably from *Fusarium oxysporum*.

According to the application as filed (page 3, lines 9-11), a phospholipase which meets this criterion is the one derived from a strain of *Fusarium oxysporum*, e.g. from DSM 2672 as described in copending PCT/DK97/0057 (which is D6). In other words, D6 discloses the phospholipase with the additional feature of claim 4.

Claim 6 (20 April 1998)

Claim 6 – lack of novelty

Claim 6 is dependent on claim 1 that lacks novelty in view of D6.

Claim 6 lacks novelty in view of D6 under Art 54(3) EPC.

The additional feature of claim 6 is that in addition to the incorporation of a maltogenic alpha-amylase and a phospholipase according to claim 1, also a phospholipid is incorporated into the dough. On page 21, lines 38-48 of D6 it is stated that emulsifiers such as phospholipids and lecithin (line 48) may be added.

As a consequence, D6 discloses all the features of claim 6 and therefore, claim 6 lacks novelty in view of D6.

Claim 7-10 (30 March 1999 or 20 April 1998 depending on the claim dependency)

Claim 7-10 – lack of novelty

Claims 7-10 lack novelty in view of D6 insofar these claims are dependent on any of claims 1-5 under Art 54(2) or claim 6 under Art. 54(3).

The additional features of claims 7-10 are:

1. not adding fat to the dough (claim 7),
2. not adding lysophospholipid to the dough (claim 8),
3. not adding emulsifiers other than the phospholipid (claim 9)
4. the dough consists essentially of flour, water, yeast, salt and sugar (claim 10).

The additional features 1-3 can be found in D6 on page 21, lines 38-47. Here it is stated that other conventionally used baking agents (those of the additional features) may be added. This wording implies then also processes in which these conventionally used baking agents are not added. Furthermore, additional feature 4, the basic recipe for the dough composition of claim 10, can be found on page 48 of D6.

Therefore, all the additional features of claims 7-10 can be found in D6 and therefore, claims 7-10 lack novelty in view of D6 under Art 54(2) or 54(3).

Claims 7-10 – lack of inventive step

Claims 7-10 are dependent on anyone of claims 1-6. Lack of inventive step for each of claims 1-6 has been discussed above.

The additional features of claims 7-10 are:

1. not adding fat to the dough (claim 7),
2. not adding lysophospholipid to the dough (claim 8),
3. not adding emulsifiers other than the phospholipid (claim 9)
4. the dough consists essentially of flour, water, yeast, salt and sugar (claim 10).

The additional features 1-4 are well known in the art, bread is baked both with and without the addition of these conventionally used baking agents and the making of a bread dough consisting of flour, water, yeast, salt and sugar is already known for centuries. Therefore, the additional features are not inventive.

As a result, claims 7-10 lack an inventive step.

Claim 11 (30 March 1999)

Claim 11 – lack of novelty and inventive step

Claim 11 relates to a dough obtained with the process of claim 1. Since claim 1 is neither novel, nor inventive (see above for the argumentation and citations involved), also the dough obtained with the process lacks novelty and inventive step for the same reasons.

Claim 12, 14-15 (30 March 1999) and claim 13 (28 April 1998)

Claim 12-15 – lack of novelty

Claim 12-15 lack novelty in view of D6. On page 21, lines 13-16, D6 gives a very broad description of the term bread-improving additives. The latter comprises dough compositions, dough additives dough conditioners, pre-mixes (claim 12) and similar preparations (the enzyme preparations of claim 13-15).

As a consequence, Claim 12-15 lack novelty in view of D6.

Claims 12-15 – Lack of inventive step

Claims 12 and 13 relate to a pre-mix and an enzyme preparation respectively which can be used in the process of claims 1-10. Since these process claims, which relate to the incorporation of the two enzymes mentioned into the dough, lack an inventive step for the various reasons given above, also the pre-mix or enzyme preparation which allow for the non-inventive incorporation of the two enzymes in the dough, lack an inventive step.

Claims 14 relates to an enzyme preparation that can be used in the process of claims 6 and 7-10 insofar the latter claims are dependent on claim 6. Since these process claims, which relate to the incorporation of the two enzymes mentioned plus a phospholipid into the dough, lack an inventive step for the various reasons given above, also the enzyme preparation, which allows for the non-inventive incorporation of the two enzymes plus a phospholipid in the dough, lacks an inventive step.

Claim 15 is dependent on non-inventive claims 13 or 14. The additional feature of claim 15 is very well known in the art. The use of hemicellulase, a pentosanase or xylanase is generally known in the art for already several decades. As a consequence, also claim 15 lacks an inventive step.

As a result, claims 12-15 lack an inventive step.

Claim 16 and 17 (30 March 1999 or 20 April 1998 depending on the claim dependency).

Claim 16 and 17 depend on any one of claims 13-15 (claim 16) or 13-16 (claim 17). Claims 13-15 lack an inventive step in view of the argumentation and citations given above.

The additional features of claim 16 and 17 relate to solid formulations of the enzyme preparations of claims 13-16. Solid enzyme formulation such as granulates or agglomerated powders are very well known in the art with the main purpose to make non-dusting enzyme preparations. Dust is determined by the size of the particle and the size of claim 17 is such as to give non-dusting preparations. As a consequence, claims 16 and 17 lack an inventive step.

5. REQUEST

Opponent requests revocation of the European Patent EP-0839167-B1 as a whole on the basis of the above presented Facts and Arguments.

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